VF NAC 6830 Elements of a Cor City Plan for

Contario Canada

AERIAL VIEW OF SOUTH-EAST CORNWALL

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Mr. J. G. Cameron, Chairman,
His Worship the Mayor, and
Members of the Town Planning Commission,
Cornwall, Ontario.

Gentlemen:

Under date of August 21, 1943, Mr. F. B. Brownridge, Town Clerk, and Secretary of the Commission, advised me that the report of your Commission, recommending my retainer to prepare a Town Planning Report for Cornwall, was approved by the Town Council on August 19, 1943, on the understanding that it was to be completed by the end of the year.

Much to my regret, due to a combination of circumstances, directly or indirectly connected with war conditions, this time schedule has not proved possible. Notwithstanding the delay, in fact to some degree intensified by it, the Planning Problem of Cornwall has been given my best attention. My report hereto annexed is intended to be what it is entitled, namely, a discussion with recommendations of the fundamental factors to be coordinated in any plan for the future growth and development of the town. This being a report to the Planning Commission, I have not thought it necessary, to 'sell' town planning, or to stress the important position of Cornwall among industrial towns in Ontario, or attempt to prove its likely growth.

Only the 'bare bones' of a city plan is dealt with in this report. Each phase could be enlarged upon almost indefinitely. No disturbance to the general structure of the town is suggested, nor any impossible proposal. It will be realized that certain of the improvements proposed are made with the secondary purpose in mind of eliminating incipient slum conditions.

I am indebted to the late Mr. Seymour for the use map of the town prepared under his direction, and also for the foundation represented by the zoning by-law prepared by him, particularly the establishment of the provision regarding setbacks. As is to be expected, my recommendations as to zoning differ somewhat from his (which were governed by existing conditions) in view of the more comprehensive nature of my study, and the wider range of my report. May I again stress that the limits of the zoned areas shown on the plan, are by way of suggestions only. Each street and each block must be given detailed consideration in the light of prevailing use, the general trend of the area, and the overall concept of the general plan.

I much appreciate the honour of being asked to prepare this report, and again express my sincere regret at the delay in presenting it.

Yours truly,

NORMAN D. WILSON.

REPORT TO THE TOWN PLANNING COMMISSION OF CORNWALL

on the

ELEMENTS OF A CITY PLAN FOR CORNWALL

Cornwall occupies a very strategic site on the north bank of the St. Lawrence River at the foot of the Long Sault Rapids. It is almost equally distant, 60 to 70 miles, from Montreal, on the east, Ottawa to the north, and Brockville to the west. Within, and for a zone of thirty miles radius, it is in every sense of the word, the chief town. It is, and has been for a century, the County Town of the United Counties of Dundas, Stormont and Glengarry. Within the past twenty years it has become one of the smaller, fast growing industrial cities of Canada, with a population within and adjacent to its limits of closely, 24,000.

Four years ago, Cornwall embarked on a program of town planning induced by the realization that the future had in store for it an increasing place among Canadian industrial cities, and equally by a determination that neither the character, amenities nor the residential property values of the community should be needlessly sacrificed in the attainment of that future.

Upon the advice of the late Horace L. Seymour, Town Planning Consultant, a zoning by-law was enacted in 1940. The beneficial effects already obtained through operation of this by-law, are becoming more and more apparent.

THE TOWN PLOT

Cornwall is very old as towns go in Ontario. It is one of the few laid out by the government in advance of settlement, or prior to the township survey. The town plot was laid out, in outline at least, as early as 1783, at the very beginning of the U.E. Loyalist immigration. The township, with a square mile reserved for the town, was surveyed in 1793.

"In the pioneer days Cornwall was the headquarters of the officials who distributed rations and other supplies to the Loyalists. Soon it became a centre for general business, with a store or two, a smithy, and a tavern, and about 1794, a Court House and Jail were erected."

An area one mile square comprised the Cornwall town site, over four times the area laid out in the original town plot of Toronto. This square mile was divided into 81 blocks, each eight chains square. Each block was divided into 6 lots, three facing north and three facing south, each slightly more than an acre in size.

The chief peculiarity of the plan is that the streets separating the blocks are alternately 66 and 33 feet wide, except that the two adjacent central streets in both directions have the wider width. The block bounded by Pitt, Sidney, 4th and 5th Streets, is the only block bounded on four sides by 66 foot streets. This block was manifestly intended for some distinctive purpose, and that it was intended as the site of the Government buildings of an extended district, if not for the whole of Upper Canada, is reasonable to assume.

The river front and Water Street was, I think, intended to be the chief business zone. When the township was subdivided and the township road to the north fell closest to Pitt Street, that street took precedence in importance over Sidney Street. The construction of the canal, between 1834 and 1842, and the location of the locks and drydock at the east edge of the townsite created an important business zone in that quarter and necessitated the first expansion of the town limits.

As to why alternate streets were made only 33 feet wide, the only logical assumption is that the 66 ft. streets were designed for the houses of the gentry, and the 33 foot streets for the homes of the commenalty with whom kitchen gardens, workshops, and cow stables would be more pertinent than grassy lawns and handsome buildings. If such was the original intention, it is impossible to see any indication that it was followed to the least degree.

GROWTH AND INDUSTRIALIZATION

It is not necessary to relate in detail the history of Cornwall. It was incorporated as a town in 1834. It enjoyed the quite real benefits of its being the County Town, as well as the considerable business coming to it from the construction of the Cornwall Canal and its later enlargement, and from the traffic through it. It is the market town of a considerable and well to do countryside. With the power available for the canal, it early (1868) became the site of two cotton mills which provided a steady back log of employment, and as Canadian Cottons Limited have steadily expanded operations through the years. In 1881 the paper mill commenced operations and as the Howard Smith Paper Mills Limited has continued to expand to its present scope. The immediate effect of this industrial development is apparent in the growth of the community.

In 1871 the population of Cornwall was only 2033. Twenty years later it stood at 6805, and then remained virtually steady for the twenty years following. By 1921 the population of the town reached 7419. The entire community totalled around 8000, as any development east of Marlborough Street and north of Montreal Road was very limited.

By 1931, the population within the corporate limits was 11.126. By 1943, this had increased to 14,246, but another 9,000 or more reside in contiguous township areas, and together make up a community of hardly less than 24,000 persons.

The great impetus in the industrial development of Cornwall has taken place since 1925. In 1908 the Ives Bedding Company and the Beach Furniture Company commenced operations, and in 1911 the Cornwall Pants Company. But the great industrial expansion began with the establishment of Courtaulds (Canada) Limited in 1924. This concern was followed by Fibre Conduits (Canada) Limited in 1929; by Powdrell and Alexander of Canada Limited in 1933, by Canadian Industries Limited in 1935, and Howard Smith Chemicals Limited in 1936. The war plant of Stormont Chemicals Limited was erected in 1942.

TOWN PLANNING PROBLEMS

From this rapid industrial expansion come Cornwall's town planning problems of today. The basic problem is a lack of any reasonable certainty as to what future can be anticipated as regards any property in the

community. The change from a county and market town with a relatively minor amount of industry, with ample space to utilize one's land as one desired without affecting one's neighbours' interests or the interest of the community at large, to a city with more confined space, with more frequent or abrupt changes in the use of individual properties, has created a condition of uncertainty as to what type of building is best suited to any neighborhood or any particular lot. What is required is some generally accepted plan of development for the future city.

Cornwall has overgrown its boundaries both on the east, west, and north, but particularly on the east, where is established a self centred wholly urban community of 6,000 people, the majority French-speaking, with traditions of urban living differing somewhat from the more open development traditional in Cornwall.

To the west of Cornwall is a smaller but more scattered population, interspaced among industrial plants, with areas here and there very much overbuilt. In no degree does this western suburb constitute a self contained community.

To the north is a scattered population of those whose supreme interest it is to own a home, be it ever so humble. They represent an overflow from Cornwall of those seeking cheap land and cheap habitation. They are very definitely urban dwellers for whom the urban community has very definitely a responsibility.

CORNWALL ELECTRIC RAILWAY

One of the factors which has made Cornwall the industrial community it is, is the Cornwall Electric Railway, whose original franchise dates from 1895. This railway with the most minor exceptions, provides all switching services, and railway interchange facilities to every industry, and every commercial concern requiring such in Cornwall, and the surrounding area. Through the service it provides it has assisted materially in attracting industries to Cornwall. On the other hand, it has turned the streets of Cornwall into railway yards, and until the enactment of the 1940 zoning by-laws, made every parcel of land in Cornwall (and as well as the parcel on either side) a prospective industrial site. The franchise has also permitted Cornwall to enjoy a passenger service of standard of frequency and quality far beyond what would be possible if the railway had had to depend solely on passenger services for its support.

At the last renewal of the Company's franchise in 1940, the movement of freight cars in the downtown area was much curtailed. Another few years will see the use of the outlying streets for railway freight transfer just as undesirable. The necessity of getting rid of freight train operations from every street in the town is a primary matter in any City-Plan for Cornwall. The Company's concession runs until July 1, 1951.

POWER AND NAVIGATION ON THE ST. LAWRENCE RIVER

Cornwall owes its origin and its continued prosperity to the River St. Lawrence. When it was founded the river was the only high road, and this was the case for two generations until the Grand Trunk Railway was opened in 1856. With the canalization of the river, came water-power and

the beginning of an industrial development. For the increasing demand of industry ample hydro-electric power has been available. Now in prospect is a tremendously enlarged horizon that will follow the construction of the St. Lawrence Seaway, and the development of the full power resources of the river as a possible post-war project.

The ultimate improvement of the St. Lawrence for power and deep water navigation is certain. The only question is, how soon? But any planning of Cornwall must assume its ultimate completion.

THE ST. LAWRENCE AGREEMENT

On March 19, 1941, an agreement was signed between the Governments of Canada and the United States providing for the Development of Navigation and Power in the Great Lakes St. Lawrence Basin. This agreement is subject to ratification by the Parliament of Canada, and the Congress of the United States. The matter has not yet been brought before either body.

As of the same date, an agreement was signed between the governments of Canada and Ontario, setting out their respective rights and responsibilities in connection with the St. Lawrence development. This agreement is also subject to the approval of the Parliament of Canada and the Legislature of Ontario, and awaits the ratification of the Canada-United States agreement.

The works provided for in the Canada-United States agreement are summarized in the annex to the agreement as follows:

ANNEX

CONTROLLED SINGLE STAGE PROJECT (238-242) FOR WORKS IN THE INTERNATIONAL RAPIDS SECTION

The main features of the Controlled Single Stage Project (238-242), described in detail with cost estimates in the report of the Temporary Great Lakes-St. Lawrence Basin Committees dated January 3, 1941, are as follows:

- (1) A control dam in the vicinity of Iroquois Point.
- (2) A dam in the Long Sault Rapids at the head of Barnhart Island and two power houses, one on either side of the international boundary, at the foot of Barnhart Island.
- (3) A side canal, with one lock on the United States mainland to carry navigation around the control dam and a side canal, with one guard gate and two locks, on the United States mainland south of Barnhart Island to carry navigation from above the main Long Sault Dam to the river south of Cornwall Island. All locks to provide 30 ft. depth of water on the mitre sills and to be of the general dimensions of those of the Welland Ship Canal. All navigation channels to be excavated to 27 ft. depth.
- (4) Dykes, where necessary, on the United States and Canadian sides of the international boundary, to retain the pool level above the Long Sault Dam.
- (5) Channel enlargement from the head of Galop Island to below Lotus Island designed to give a maximum velocity in the navi-

gation channel south of Galop Island not exceeding four feet per second at any time.

- (6) Channel enlargement between Lotus Island and the control dam and from above Point Three Points to below Ogden Island designed to give a maximum mean velocity in any cross-section not exceeding two and one-quarter feet per second with the flow and at the stage to be permitted on the 1st of January of any year, under regulation of outflow and levels of Lake Ontario.
- (7) The necessary railroad and highway modifications on either side of the international boundary.
- (8) The necessary works to permit the continuance of 14 ft, navigation on the Canadian side around the control dam and from the pool above the Long Sault Dam to connect with the existing Cornwall Canal.
- (9) The rehabilitation of the towns of Iroquois and Morrisburg, Ontario.

All the works in the pool below the control dam shall be designed to provide for full Lake Ontario level but initially the pool shall be operated at maximum elevation 238-0."

The Canada-United States agreement provides for the establishment of an International Commission of not more than ten members of whom an equal number shall be appointed by each government. This Commission is empowered to prepare and recommend plans, approve contracts and supervise construction of the works necessary. One important duty will be to allocate construction work so that the nationals of each government construct the works within their respective territories, or where such is not practical, an equivalent amount of work in the other's territory. Boundary restrictions are to be waived to permit effective and economical prosecution of such works on foreign soil.

The agreement further provides that all funds for the construction of all works in the International Rapids section with certain specific exceptions are to be provided by the United States. The exceptions are as follows:

- (1) Machinery and equipment for the development of power.
- (2) Works required for rehabilitation on the Canadian side of the International boundary.
- (3) Lands and interests in lands in Canada necessary to give effect to the agreement.
- (4) Consequential damages of any sort on the Canadian side, except with respect to damage to persons or property, occurring in the course of work being done by a U.S. national on the Canadian side of the border.

In the Dominion-Ontario agreement, Canada assumes full liability for the acquirement of all lands required to carry out its international obligations, and agrees to compensate any municipal body for serious loss in tax revenue affecting the security of any issued debenture, due to loss of taxable property occasioned by the works.

REHABILITATION PLANNING AUTHORITY

In view of the fact that all Town planning powers derive from provincial jurisdiction, it is the writer's opinion that a joint Provincial-Dominion Committee should be set up and be created the Town Planning Authority over the rehabilitation zone, to co-operate with the International Commission in those matters affecting the life of the communities for which the Dominion Government has assumed complete financial responsibility.

The easterly limit of this Special Town Planning and Rehabilitation Zone should be the New York Central Railroad.

EFFECTS ON CORNWALL OF THE ST. LAWRENCE PROJECT

The main dam and power station will be located immediately west of the town, and Cornwall is bound to profit both from the actual construction, as well as from the continued operation of the power stations.

While Cornwall itself is unaffected in any physical way by the St. Lawrence Development, the highway approaches to the town from the west are drastically altered, and any plan of Cornwall must conform to the altered condition. Cornwall also stands to gain in population from the inundation of the villages westward to Cardinal. An established community such as Cornwall exerts a tremendous drawing power on persons dispossessed of their homes, and with no necessity to relocate in the same vicinity.

Cornwall will also stand an equal chance with other cities in the province for the utilization within its environs of the power to be generated from the new head to be created. Nearness to the source of power will certainly not be a disadvantage.

THE ST. LAWRENCE DEVELOPMENT

The present International proposals, which it must be assumed, will be ultimately implemented, call for the main dam to be erected at the upper end of Barnhart Island.

The power houses, both United States and Canadian, will be located at the lower end of Barnhart Island, just two and a quarter miles westerly along the present Montreal Road from the New York Central Station.

The Ship Canal will be located on the American side of the river. It cuts across behind Massena Point, with the main ship channel continuing on the south side of Cornwall Island. The rehabilitation of the 14 foot Canadian canal is proposed. The present canal in front of Cornwall remains undisturbed, but west of the present Lock No. 19, is directed slightly to the North, and either one or two new locks installed to raise the water the 50 feet or so, to the level of the new pool, which will be but a few feet below Lake Ontario level.

A regulating dam is to be built across the river at Iroquois to prevent too great seasonal variations in the level of this pool. A very substantial area of the Canadian shore will be flooded by the work, including all the villages between Morrisburg and Cornwall. The railway and highway will

be flooded and must be reconstructed further north. The present islands in the river will disappear but a new series of islands will be created out of the high ground fronting the Long Sault Rapids. These new islands could be readily connected to one another and the new shore by causeways and bridges. This should be done and the whole group extending for six miles, preserved by the government as a park.

While part of Morrisburg will be inundated, this village is not so seriously affected that it cannot be preserved and rehabilitated with every chance of it continuing a prosperous community. Morrisburg is 26 miles west of Cornwall, and about the same distance east of Prescott.

Between Morrisburg and Cornwall all existing villages will disappear, though none is of any size. No doubt small villages will replace them, but these will be essentially agricultural communities. Mille Roches is a possible exception, and certainly so provided the Provincial Paper Company is re-established in this vicinity.

There is, however, another factor which will benefit Mille Roches and is of interest to Cornwall. Thirty foot navigation will be available to within four hundred feet of the new shoreline at Mille Roches—Moulinette, so that deep water dockage can be created here at minor cost. In my opinion, this point, for some time at least, will be the deep water port for Cornwall. It would be but 5½ miles from the centre of Cornwall. It may be said here that extended dredging will be required off the easterly end of Cornwall Island to make twenty-seven foot navigation possible even as far as Courtaulds. Twenty foot navigation is available or could be made available at relatively small expenditure from the main ship channel at St. Regis Island to the mouth of the present Cornwall Canal.

A goodly section of the area south of the C.N.R. between the New York Central Railroad and present Mille Roches will be required for canal reservoirs, electrical switching stations, and power lines. As well, this area will be situated behind an earth dyke, and cut off from any view of the river. It would seem logical for this area to trend to rather greater industrial use than residential use.

NEW RAILWAY AND HIGHWAY ALIGNMENTS

As previously mentioned, both the Canadian National Railway and the Main Highway must be given new locations from Cardinal eastward. The projected line of the C.N.R. runs north-easterly across the townships of Williamsburg and Osnabruck about a mile inland from its present location. From the westerly limit of Cornwall Township, the new alignment runs east and south-east to meet the present C.N. tracks at their crossing of the New York Central. At Mille Roches the railway will be located three quarters of a mile easterly along the concession road from its present position.

The new highway is not finally located, but it is likely that through the westerly part of Cornwall Township it will run parallel to and on the northerly side of the new position of the railway. About where it crosses the New York Central Railway the new road will probably turn north-easterly and run parallel to and somewhat to the south of the power transmission line, crossing St. Andrews Road (Pitt Street) about one half mile north of 9th Street.

RAILWAY RE-ARRANGEMENTS IN CORNWALL ESSENTIAL

As above mentioned, the St. Lawrence Waterway development will require the deviation and complete reconstruction of the Canadian National Railway from Cardinal to its crossing with the New York Central Railroad at Cornwall.

The railway station, freight yards and facilities in general of the Canadian National Railways in Cornwall are, with but minor modifications, those initially constructed by the Grand Trunk Railway. They are out of date and inadequate and their modernization is overdue. This modernization should certainly be done at the time of reconstructing the tracks west of Cornwall.

I propose that the Canadian National Railway elevate its tracks through Cornwall, raising same about six feet at Marlborough Street, about ten feet at Adolphus and Pitt Streets, about fifteen feet at Cumberland Street and twelve feet at Brookdale Avenue. Subways would be constructed under the tracks at all these streets. A new passenger station would be built between Sydney and Pitt Streets. Freight yards and passing tracks could extend from Marlborough Street to the New York Central Crossing, but probably the mile westerly from the station would be an adequate and preferable location.

With the growth and development of Cornwall, and the location of the new Toronto-Montreal Road north of the railway, grade separated highway crossings are a necessity. The present railway grade is at too low an elevation to permit drainage of highway underpasses without elevating the tracks, nor could the tracks be depressed to pass the highways over them, for the same reason.

The Canadian Pacific Railway line into Cornwall is essentially a freight siding. Passenger service over it is purely nominal. Passengers can neither get out of Cornwall and return the same day, or get into Cornwall and out the same day. In view of bus possibilities there is nothing to indicate that existing passenger service will continued to be warranted. As with the C.N.R., the C.P.R. receives and distributes all its carload freight by the interswitching services of the local street railway, and the exact point of interchange is a matter of little account. The C.P.R. chose its present terminal in the anticipation that a factory zone would build up around it. Such has happened to but a very minor degree. The major industries of Cornwall have established themselves elsewhere; switching arrangements have been made with the Cornwall Railway, and the improvement in the highway system and the development of bus and truck transport have most materially modified the outlook from what it was at the date the C.P.R. entered Cornwall. The C.P.R. yards lie in the way of the development of the most desirable residential land in Cornwall and vicinity, and through the closing of Seventh Street, have created a severance in the street system which will be increasingly felt as the years

I propose that the C.P.R. relocate their terminal facilities on the north side of the C.N.R. and adjacent to its tracks with its freight houses on 11th Street. The C.N.R. passenger station should be jointly used. (Rail level would be ten feet above the station level, with the platforms reached by stairs from a passage-way under the tracks.)

The C.P.R. tracks should be connected with the N.Y.C. tracks, and I suggest the latter might be used from Finch to route the C.P.R. Toronto-Peterboro-Montreal service via Cornwall. The additional distance involved in this deviation is 9 miles. This extra distance might well be warranted to bring Cornwall on C.P.R. main line service. This arrangement might also obviate the need of an engine stall at Cornwall.

A very considerable amount of the heavy freight to Cornwall is for delivery at the west end of town. The New York Central right of way between the C.N.R. and the Montreal Road would appear the logical transfer yard for both the C.N. and C.P. Railways.

The future of the Ottawa and New York Railway (N.Y.C.) is obscure. Its direct extension in United States has been abandoned, and the line now has no function, except to shuttle a minor amount of freight across the river. For the limited distance between Cornwall and Ottawa, the railway cannot compete with bus service, nor with motor transport service. While the railway company prior to the war asked for leave to abandon the line, such was refused by the Board of Transport Commissioners. The line between Cornwall and Finch is crooked for the character of country traversed, and the right of way would have small attraction for use for highway purposes.

Premising that this railway will cease operations into Ottawa, it would seem desirable to retain the track connection to U.S.A. even if operated by the Cornwall Electric Railway. Certainly this railway connection should be of utility during the construction phase of the St. Lawrence Development.

ELECTRIC RAILWAY SWITCHING

I assume that all switching services to industries in Cornwall will continue to be performed by the Cornwall Electric Railway. A continuous program of eliminating freight movements through the streets should be consistently maintained, and the operations of this railway more and more confined to private right of way. The elimination of the C.P.R. freight connection on Pitt Street at 6th Street will materially assist to this end.

I have suggested the N.Y.C. station grounds as the desirable general break-up and assembly yard. The grade crossing of the two railways would be retained, but I also indicate an under-crossing of the C.N.R. by the electric railway to provide free access to the C.N.R. and C.P.R. west bound main lines. Due to drainage difficulties, headroom is restricted to sixteen feet, with grades possibly as high as $1\frac{1}{2}$ per cent.

There appears no immediate possibility of removing track from Water Street, west of Amelia Street. However, east from Amelia Street the track should follow the edge of the Canal, crossing the head race of Canadian Cottons, west of Marlborough Street. From that point it would parallel the tail race, crossing same at the river bank, which it would follow to Courtaulds. This would permit track to be removed from the Montreal Road. Montreal Road is bound to be an increasingly important business street.

To free Cumberland Street of tracks, the spur line is shown following the north and east limits of the Howard Smith Paper Company property.

If with the growth of Cornwall into a city of the 100,000 population

class, deep water dockage is created east of the present city limit, rail connection from the north into Courtaulds and this business water-front may become necessary. This is possible along the westerly limit of Courtaulds at the expense of not too heavy grading.

AIRPORT

Any airport for the Town of Cornwall would be for local air services, for private flying and as an emergency field. Landing strips possibly 3,000 feet long would be ample for these purposes, though it would be very desirable if the site permitted of extension of the runways to 5,000 feet.

A study of the topographic maps show there are very few sites in the vicinity of Cornwall of cleared land that are of sufficient size, clear of power lines, sufficiently level and free from watercourse and ditches to warrant consideration. One of the most interesting possibilities, and much the closest to Cornwall, is a 1000 acre site east of Courtaulds immediately south of the Canadian National Railways. This site has the apparent disadvantage of there being a ridge of higher ground between the field and the river, as well as the proximity of the Courtauld Buildings and Chimneys. None the less this site has many advantages and as regards flightways and obstacle formula, can be made to satisfy the requirements of the Department of Transport.

A smaller site, a mile square, north of Glen Walter, may have possibilities, but these two sites appear to be the only locations within a five mile radius where a sufficient size parcel of land free of swamp or watercourse is indicated. An airport site beyond the five mile radius would not affect any plan for Cornwall, as traffic to it would be over one or other of the main radiating highways. The possibility of an airfield east of Courtaulds is considered in the plan proposed. It represents land that normally would remain agricultural land for several decades. A power line would require to be diverted or put underground.

INDUSTRIAL AND RESIDENTIAL AREAS

Irrespective as to whether such was desirable or not, the heavy industries of Cornwall have located on the west side of town. Such include the Howard Smith Paper Mills, Canadian Industries, Powdrell and Alexander, Fibre Conduits, and Stormont Chemicals. Oil storage and coal storage have also taken possession of the bank of the Canal to the west of the New York Central Bridge. With the prevailing south-west wind the odors of wood pulp are frequently noticeable throughout the western part of Cornwall. While it is to be expected that under peacetime conditions, methods and equipment can be introduced to mitigate industrial odors, the presence of these industries and the likelihood of more in this vicinity, will undoubtedly have the effect of making the north-easterly corner of the town the more interesting for residential purposes. This area is also the highest ground within or adjacent to the municipal limits. The elimina-

tion of the C.P.R. yards will make available for residential use, land which, under present conditions, has a very uncertain character. The block now occupied by the Department of Defence on Marlborough Street, in fact all the area north of the Armouries, lying east of the town, should be allocated for ultimate residential use and protected for that purpose.

The area north of the Canadian National Track is as yet largely agricultural. A subdivision in the extension of Cumberland Street is about half developed, and the former fair grounds have been allocated to Wartime Housing. Aside from these there is a straggling development on 10th Street. This northern area should be limited to market garden lots, and building upon small urban lots should be discouraged, until actual need for land for building purposes warrants the expansion of the town northerly.

GREEN BELT AND EXTENSION OF MUNICIPAL LIMITS

To prevent the sprawl of urban development spreading over an unnecessary large area, it is recommended that the town extend its northerly boundary to the power line of the Montreal Light Heat & Power Co. Ltd., and zone the area north of a line, say 800 feet north of 11th Street, for agricultural, including market garden use, subject to the present exceptions, namely, the Wartime Housing and Garden-City Subdivisions. The part of this latter subdivision north of the new Toronto Montreal Road, should be suppressed. It is most unlikely that it streets will be given access to this major highway when built.

It is strongly recommended that the town annex the area lying between its westerly limit and the N.Y.C. Railroad, as representing the only way by which the town can control its environs. The area north of the C.N.R. should be retained as green belt; the area south of the C.N.R. is largely industrial and is the legitimate area for industrial expansion. The N.Y.C. Railroad is the proper easterly limit of the area extending west to Cardinal which should come under the control of a Provincial-Dominion-St. Lawrence Rehabilitation and Town Planning Commission. The municipal jurisdiction of Cornwall should abut the jurisdiction of this body whose creation is essential for the proper social rehabilitation of the towns and villages inundated by the St. Lawrence Development.

There is no similar reason which would apply to the extension of the east limit of Cornwall. There is located east of the town a very solid and self reliant urban area centered on the Montreal Road, and I am reticent to recommend its annexation as this area might prefer, as it is well capable of doing, to form its own municipality.

At the same time, the necessity exists for Cornwall to protect itself from over optimistic expansion to the north-east. I recommend that the easterly limit of Cornwall be the middle line of Lot 6, both to the north and south of the railway, as far south say, as the centre line of Fourth Avenue produced easterly, and that these parts of Lot 6, be zoned as farm land or cemetery.

South of Fourth Avenue, I recommend that the easterly limit be made the centre line of Lawrence Avenue from Second Street to Fourth Street. At present the hospital site extending to Lawrence Avenue has been annexed to the town. This site should be increased in size by the acquirement of the subdivision to the north, and extending the hospital grounds to abut the Community Athletic grounds. The continued growth of Cornwall is axiomatic, and hospital accommodation must more than keep pace.

ANTICIPATED GROWTH OF CORNWALL

When the town plot of Cornwall was laid out around 1790, it provided ample space for a population of at least 5.000 persons on the semi rural basis of living manifestly anticipated. The townsite included considerably more area than was likely to be needed for many years, but those responsible made certain that as the town grew, it would do so in accordance with an urban plan.

Most of the towns in Ontario founded prior to 1850 were quite acceptably planned for limited populations. Then suddenly the world entered the mechanical age, and as regards our cities and towns, both in Britain and America, vision completely faded. Growth beyond the planned areas of our cities was allowed to occur indifferently. It is more than twenty years since the population of Cornwall began to spill over the edges of the townsite.

Manifestly it is not possible to accurately estimate the population, or to envision its ways of living one hundred years hence. It is, however, possible to make reasonable forecasts covering the next twenty-five or thirty years. Planning must be a continuous process, constantly anticipating the size, extent and needs of the municipality for a generation ahead, and laying down a general chart for its growth and evolution during that interval, and, as well, providing more detailed suggestions on matters of immediate scope. Planning is never complete. This report is intended to provide a general pattern only, for the growth of Cornwall during the next thirty years.

The plan herewith presented visualizes greater Cornwall, a community of 50,000 population, or with somewhat more than double the present population of the town and its suburbs. Whether this population is attained in twenty years or not for forty years is of no consequence. Of the above population, about 30,000 would be resident within the enlarged municipal limits proposed, possibly 15,000 would be found east of that area, and 5.000 be found west of it.

The municipal limits as suggested are not intended as final. Once the C.P.R. yards are moved elsewhere, a natural expansion eastward of the residential area north of Fourth Avenue can be expected, and when this occurs this zone should naturally be included with Cornwall proper.

East Cornwall will naturally expand easterly along the river front, and northerly to a more limited extent. It may be that this eastern area will later be merged with Cornwall, though such merger does not appear essential if the two communities continue the harmonious co-operation which has been a feature of their relationship to date.

With the consummation of the St. Lawrence Power and Navigation project there is bound to be considerable development to the west of the New York Central Railway, and extending to the township road allowance between Lots 18 and 19. West of this all the land south of the present railway is likely to be required for government purposes.

Both industrial and residential development is probable east of the above mentioned sideroad, but such is so closely linked with the carrying out of the international project, that all the area west of the New York Central should come under the jurisdiction of whatever planning authority is established to rehabilitate and replan the affected municipalities between Cornwall and Cardinal. It may be that all the area east of Lot 19 will eventually form part of Cornwall.

I see no reason for the expansion of Cornwall northerly beyond the extent indicated. The location given the new Toronto Montreal Dual Highway will be a determinant in the width of the green belt to be established. In no event should urban development be permitted north of the new road. The purpose of the green belt is definitely to put a limit to the town in this direction. In the event that Cornwall should attain the metropolitan size, a completely distinct neighborhood can be established beyond the green belt, in which case the latter will be converted to park use.

The gross land area within the present corporate limits of the town is 885 acres, and the town population 14,246 persons, or 16 persons per gross acre. The land area within the limits proposed totals 2170 acres, which, for a population of 30,000 represents 14 persons per gross acre. An ultimate density of 20 persons per acre would not be excessive.

WIDENINGS PROPOSED

Street widths in Cornwall Town and Township are very narrow by modern standards for modern highway needs. The width of the township roads is, I believe, 60 links, or not quite 40 feet. In the townsite the amount of street space is much below average, due both to the fact that the streets are 528 feet apart, and that every alternate street is only 33 feet wide.

Cornwall has so few streets of fair width, that absolutely none of them can be given over permanently for the switching of railway trains. With increasing industrial growth, there will be an increase in both inbound and outbound freight, as well as an increase in legitimate highway traffic.

The removal of the C.P.R. terminals from Sixth Street, will also obviate, in great part, the need to move freight trains on the public highways. The railway cuts so deeply into the townsite, closes or creates hazards at so many streets, and so seriously affects the whole proper growth and development of the town, that its removal is a sine qua non to any effective planning.

I recommend that all original township road allowances within the environs of Cornwall be widened to 80 feet, and that a definite policy be adopted to that effect. In certain places this widening can be accomplished by the operation of the Planning and Development Act. In the majority of cases, it will have to be accomplished by negotiation, and if necessary by expropriation. Whether the widening should be made on both sides, or on one side, is immaterial provided jogs in the street line are avoided.

These township road allowances recommended for widening are specifically:

- (a) Brookdale Avenue, from Water Street to the new Toronto-Montreal Highway;
- b) St. Andrews Road (Pitt Street) from 11th Street, to the Toronto-Montreal Highway;
- (c) McConnell Avenue, from 2nd Street (at least to the Toronto-Montreal Highway;
- (d) Eleventh Street, from Brookdale Avenue to its crossing of the C.P.R.

In addition, all these streets should be widened under the operation of the Planning and Development Act (by the filing of a major street plan with the Municipal Board) to the limit of the Cornwall Urban zone. Other main township roads, the Montreal Road, and all proposed main roads through unsubdivided territory, such as the Road to Mille Roches, the Hawkesbury Diagonal, and Second Street to Grays Bridge, should also be protected by adding them to the Municipal Board Plan.

I recommend that Water Street be widened ten feet on the north side from Brookdale Avenue to Marlborough Street, and most emphatically from Augustus Street to Adolphus Street. This central section can readily be widened as most of the existing buildings are sufficiently back from the street to permit a ten food widening. Between Augustus and Adolphus Streets, the level of Water Street falls below the level of the Canal embankment, and pavement width is very limited, having regard to the fact that the electric railway track must be retained on Water Street as far east as Amelia Street.

Race Street should be widened and directly connected to William Street.

I also recommend the widening of the Montreal Road westerly from Cumberland Street to Brookdale Avenue to the full width of 66 feet.

Aside from the above and possible other minor street improvements mentioned elsewhere, there is no general program of street widenings proposed, other than a rigorous enforcement of the twenty-foot set back for all buildings hereafter erected in the residential zones indicated on the general plan. With respect to business or industrial zones, I recommend that except where flankages are involved, set backs be demanded to maintain sixty-six feet between buildings on either side of any street.

CORNWALL'S SQUARE BLOCKS DIFFICULT TO SUB-DIVIDE

The town plot of Cornwall was designed for a pioneer community where an acre lot was a minimum requirement. But it is a problem to adapt them to present day needs.

The large blocks, 528 feet square, are still too small to permit a street of normal width to be cut through them, and at the same time, provide the most desirable depth of building lots. But unless internal frontage is provided, the centres of the blocks in most cases remain waste land.

There are a number of instances noted where the blocks have been pierced with a supplementary street and most desirable frontage created. Victoria Street is one example; McDonald Avenue is another. Trinity Avenue is an example of where a very special condition has permitted a unique development. There are, however, a number of cases where houses have been erected fronting narrow rear lanes, with the houses facing none too tidy rear premises across the way. These are incipient slums. Possibly the worst examples of this condition are in the township areas which I have recommended be annexed to Cornwall. I so recommend because it is the only way the town can prevent the start of such conditions. Zoning and the issue of building permits are the prerogative of the individual municipality. Existing legislation gives an urban muncipality no control in these matters outside its corporate limits. It also must be said that

Cornwall cannot avoid the certain economic and social results of such overbuilding, just because such occurs on one side, and not the other, of an imaginary line.

I make no specific recommendations for opening up the centres of any particular blocks. In general, the introduction of cul de sacs or courts, such as that laid out by Wartime Housing Limited off York Street, is recommended, either for single family houses or multiple housing. Another suggestion is that indicated on the plan at 6th and Gloucester Streets. I recommend against the introduction of intermediate streets which would be continuous through two or more blocks. In most instances an individual solution will have to be found for each block, depending upon the way the several private properties are held and utilized. Whatever width of intermediate street is used, the fronts of the buildings on either side of it should be at least seventy-three feet apart.

The occasional use in residential areas of one of these dead centres for community purposes, such as a bowling or tennis club, a children's playground, a primary school, or even a community garage is not unlikely. Individual circumstances will determine whether any such use is desirable or undesirable.

One result of Cornwall's historic subdivision is certain. The town will always tend to show a high density of land use. If intermediate streets are introduced, the average depth of lot is smaller than is usual in Ontario towns. If such is not done, the very deep lots are attractive for multiple dwellings.

It follows that a very goodly amount of park and playground area must be provided, and well distributed throughout the town.

PARKS OR PLAYGROUNDS

Cornwall has been by no means derelict in providing parks and playgrounds. Central Park, Memorial Park, the Community Athletic Park, the park square at the Town Hall, and the playground at York and Seventh Streets are most attractive and useful. The Gore Park at Duncan Street is an immeasurable asset for that vicinity. The new park now in process of development on the river front at the foot of Augusta Street, will be a real addition to the city. The Dominion Government Park at Lock 15 is a breathing spot on the river for the townspeople, and a greeting from Cornwall to those passing through the Canal. As well, Trinity Church grounds, the Public School grounds, and particularly the grounds of St. Columban Church are outstanding factors in the general attractiveness of Cornwall. And the same is true of many private residential properties that still retain their original ample grounds.

The beauty of Cornwall is not going to come from a multiplicity of stately public buildings, but from a simpler and more individualistic domestic architecture on grassy, tree-lined streets, with frequent public parks and open spaces, where nature can atone for the variations in our human taste.

Additions to park and playground areas are recommended as follows:

The entire area between the Canal and the river from Lock 15 as far west as Brookdale Avenue, if not to the Roosevelt Bridge, less the area in use by the Stormont Cotton Mill.

The middle block between 3rd and 4th Streets south of the Powdrell and Alexander plant, for playground purposes.

The extension of the York-Seventh Street playground by the addition of all interior area available, with an entrance to 8th Street.

The one acre lot at the south-east corner of Cumberland and Ninth Street, for playground purposes.

A semi-circular park fronting the proposed Union Station on Ninth Avenue, between Pitt Street and Sidney Street.

A formal park strip or sunken garden, 200 feet wide, on the north side of Sixth Street, between Pitt Street and Adolphus Street.

An area for school and playground purposes south of the Roman Catholic Cemetery property on McConnell Street.

In the area north of the Canadian National Railway, adequate playground space can be provided in the green belt reservation.

If new Fair Grounds are deemed necessary, one possible site is north of 12th Street to the east of Cumberland Street. An ideal site to which street car service is already available would be a section of the industrial area at the north-east or north-west corners of Brookdale and Seventh Streets.

While outside the proposed limits of the town, the high near island at the foot of Guy Street is an admirable park site which should not be lost to the people. The street railway park to the east is a well used picnic ground, but seems destined for industrial use. The small park at Belmont Street and Easton Avenue in which stands the historic windmill-blockhouse, should be increased in size.

While not in the immediate picture, it is to be expected that some day Cornwall Island, in the whole or part, will be available for park purposes to Cornwall. A bridge at the foot of Pitt Street or Augusta Street is a future possibility.

BASIC ZONING

In a general way, the area within the municipal limits would be zoned as follows:

Industrial, including Outside Storage

- (a) The area bounded by the New York Central, the Canadian National Railway, Cumberland Street, Seventh Avenue, Brookdale Avenue, and the Canal;
- (b) The area occupied by Powdrell and Alexander of Canada Limited.
- (c) The railways area between 9th Street and 11th Street (Concession Road) lying west of Adolphus Street.
- (d) East of Marlborough Street between William Street and the Canal.
- (e) The Stormont Cotton Mill site on the south bank of the Canal;
- (f) The area between the New Canal and the head race to Canadian Cottons.

Commercial and Retail

- (a) Pitt Street, both sides, from Water Street to 150 feet South of Seventh Street;
- (b) Second Street, both sides between Augustus Street and a point 176 feet west of Sidney Street, to a depth of 264 feet, and from 176 feet west of Sidney Street to 176 feet east of Sidney Street to a depth of 100 feet.
- (c) Water Street, both sides from 176 feet west of Adolphus Street to Marlborough Street to depths of 150 feet, more or less.
- (d) Montreal Road, south side from Marlborough Street to the east municipal limit to the depth of 100 feet more or less.
- (e) Water Street, between Sidney Street and Central Park.

WAREHOUSE AND LIGHT INDUSTRIAL — (Wholesale, Storage, Garages, Repair Shops, Small Industries;—all operations essentially under cover).

- (a) Water Street, north side, from Cumberland Street to Mulberry Street:
- (b) Water Street, north side from York Street to Midway between Adolphus Street and Pitt Street;
- (c) Water Street, north side from 176 feet East of Pitt Street to Sidney Street;
- (d) Water Street, north side from Amelia Street for 352 feet east;
- (e) Between the business frontage on Water Street and Race Street, between Adolphus Street and Marlborough Street, excepting the frontage on either side of Bergen Street between 100 feet South and 500 feet south of Water Street.
- (f) Between the business frontage of Montreal Road and William Street between Marlborough and Albert Street;
- (g) On both sides of First Street between 176 feet east of Augustus Street and 176 feet west of Pitt Street;
- (h) On the south side of Third Street, between 264 feet west of Pitt Street and 176 feet west of Pitt Street, and between 176 feet east of Pitt Street and 264 feet east of Pitt Street;
- (i) On either side of Pitt Street, from 150 feet south of Seventh Street to Eighth Street;
- (j) Seventh Street, both sides, from 176 feet west of Pitt Street to 176 feet of Sidney Street, and on the north side from 176 feet east of Sidney Street to Amelia Street;
- (k) Eighth Street, south side from 176 feet East of Augustus Street to 176 feet west of Sidney Street, and from 176 feet east of Sidney Street to Amelia Street;
- (1) Eighth Street, north side, from Amelia Street to Adolphus Street;
- (m) Ninth Street, south side, from Amelia Street to Adolphus Street;
- (n) Second Avenue, south side, Cumberland Street to 150 feet west, and Cumberland Street, west side, Elm Street to Second Street.

Single Family Dwellings

(1) All the area north of Fourth Street, and south of Seventh Street, lying east of the lots fronting Pitt Street, and including both sides of Sidney Street between Seventh and Eighth Streets;

- (2) All the area north of Eleventh Street, not reserved for Green Belt:
- (3) The area lying north of Fifth Street and south of Ninth Street between Cumberland Street and lands hereinbefore defined as Warehouse and Light Industrial, or Industrial Areas.

Multiple Unit Dwellings

All the area not included in any other zoned area, or specifically allocated to park or other special use.

Always provided that in no circumstances will the buildings on any parcel of land, (no part of which is required under this clause as part of the site of any existing building) contain a greater floor space (including that four feet or less below street grade) than the area of the lot irrevocably assigned to such buildings while they continue to exist.

Provided further that in calculating the area of the site assigned to any building, the area of the public way out to the centre of any public street abutting the side, may be included.

General Exception

The use of any parcel of ground not in accord with the above restrictions, may be continued, while the present or closely equivalent use continues uninterrupted, and provided further that while such uninterrupted use continues, a reasonable expansion of site on immediately adjoining properties shall not be denied, if business needs warrant such expansion, and exceptional damage is not occasioned by any such expansion.

As stated, the above zoning provisions are in general form only, as also are the boundaries of the various zones. The matter will have to be studied in greater detail before new zoning by-laws can be drawn, or the existing by-law amended. It may be desirable to restrict parts of certain streets to one family dwellings, or to apartments, or to define small retail areas in residential zones, particularly where two or three stores now exist in close proximity. The law gives an owner the right to continue the same use of any property for which it was used at the time of passing any zoning by-law which presumably would forbid that use. Exceptions for churches, schools, public buildings, etc., must also be written in.

The proposal to limit all residential buildings of every class to a floor space equivalent to the area of the lot allocated to the buildings, provides absolute control of density of building, and weighs uniformly on all property owners.

PUBLIC BUILDINGS AND SUGGESTED SITES

Cornwall has the disadvantages of the checkerboard plan in having no definite centre or any particularly logical location for its public buildings. The block bounded by Pitt, Sidney, Fourth and Fifth Streets was criginally intended for a Government centre, but early hopes did not materialize, or else the site was too far inland for the infant settlement. Water Street, with its broad aspect over the river, and the busy waterfront, was a logical choice for the County Buildings. These, I understand, are to be reconstructed on the same site, which appears a most convenient one.

While Water Street has been turned to Commercial uses, and has been zoned for such uses, there is no reason why it should not continue to be maintained as a dignified street, with well designed buildings, whether they be used for light industry, for public or semi-public use or for apartment houses or hotels. It is not impossible to envisage, a generation or so hence when the fourteen foot canal has become obsolete and has been covered over or filled in, Water Street as Cornwall's Michigan Avenue, a wide boulevard, with park stretching to the water's edge. It is for utilitarian purposes, but having also this possibility in mind, that I recommend the widening of Brookdale Avenue, and the preservation of Adolphus Street, and its opening into proper outlets at the north end of the town, to form something in the nature of a ring boulevard.

The present Registry Office building is in no particular place, and a new site should be provided, when a new building is in prospect. The County should be persuaded to extend its property on Water Street to Augustus Street, and locate the Registry Office well back from the street, on this site.

With respect to Dominion Government Buildings, the Post Office and Customs Building is strategically located for its purpose, and presumably will serve for a number of years to come, with minor extensions. When the time comes to provide a new post office, a free standing building on a larger site will no doubt be erected.

The Armoury is new, of pleasing architecture and well placed. I am uncertain as to the size of the site, but believe it to be not overly large. Desirably the whole interior, if not the whole depth of the block to Sixth Street should be allocated as a site, and, even better, the entire frontage on Marlborough Street.

On the basis of ready accessibility to the bulk of the construction work, Cornwall is the logical location for the headquarters of the International Commission charged with the construction of the St. Lawrence Development Project. There is no town of comparable size or facilities on the American side which is nearly as convenient. In any case it will be the headquarters of the Canadian and Ontario staffs. As an initial measure the Dominion Government should construct an adequate office building of permanent construction in Cornwall for the use of the Commission, its engineers, and Dominion and Provincial staffs. A site on Water Street, west of Augustus Street is suggested, or, in the preferable alternative, fronting Central Park on Amelia Street at Water Street.

Of all public buildings, the town buildings require the earliest replacement. A new town hall, a new firehall, a new market, are all overdue, and a new library building cannot be long delayed.

Cornwall was a substantial county town long before it became industrialized. Its commercial buildings, its churches, schools and residences are expressive of its solid characteristics. These were stamped upon it when it was a town of less than three thousand population. Almost everything that gives the town its character is contained within a one-third mile circle of Pitt and Second Streets. Business, churches, schools the better residence areas, are crowded into the central zone. Possibly the presence of the creek depression, cutting diagonally across the town tended to concentrate its growth, and this tendency was emphasized by the intrusion of the C.P.R. terminal. Cornwall is certain to grow into a very considerable city, and this centripetal complex must not be allowed to exercise too great an influence.

Probably the most outstanding effect which the St. Lawrence Develop-

ment will have on Cornwall, which indeed will come in any case, as soon as a new Montreal-Toronto highway is constructed, is that all entrance into and exit from the town will be via the streets leading north. The business area on Pitt Street will unquestionably expand northerly. The present town hall site, instead of being at the end of the business zone will be in the centre of it.

On the basis of the plan presented herewith, an outstanding site for a public building, would be on the west side of Pitt Street, north of Sixth Street, facing the long mall or parkway which takes the place of the C.P.R. yards. This would be a very desirable site for a civic auditorium in which building might be included the library and the beginning of an Art Gallery, a centre for all cultural and social organizations. With it also could be included the civic administration offices, or a separate city building could be constructed on one of several sites.

A site is available at the north-west corner of Pitt and Fifth Street, but its sole particular virtue is that it is now vacant. A more preferable site would be on the south-west corner of Fifth Street, taking advantage of the open grounds of St. Columban Church. (if such are to be permanent).

The present tendency is to make a town hall a convenient office building for carrying on the town's business, rather than build a monumental building whose first purpose is to express the town's dignity. As stated, the present site of the town building is convenient, and will become increasingly so, and I recommend that a new building be erected on the south end of this property, with its main facade facing north but with a business entrance on Pitt Street. Between the Civic Building and Fourth Street, the area would be retained as a formal centre-of-town park, 175 feet square.

The fire department, and possibly the police department, would be removed to a new site, off the main street. The fire hall should be located on a sixty-six foot street. A site on either side of Fourth Street within two hundred feet of Pitt Street is suggested.

In any civic building erected, adequate and proper facilities should be provided for the holding of sessions of the Municipal Board, the Transport Commission, or other provincial or Dominion body, or for labour arbitrations and such like. These facilities should be distinct from the Council Chamber.

New market accommodation is required. Proper accommodation would increase the number of both buyers and sellers. In addition, proper bus terminal facilities will be a fundamental need of post-war Cornwall. I recommend that the town acquire frontage on the west side of Pitt Street, either between Fifth and Sixth Street, or Sixth and Seventh Street, together with the whole interior of the block, say 250 feet by 400 feet, and develop such area for these joint purposes. It is assumed that a charge would be made to bus operators, using the terminal, and in turn that these charges would be so proportioned that they could afford to do so. In any case, the use of the public street as a bus terminal is not a proper one.

With the development of Sixth Avenue as a parkway, on which residences only would front, a new site for a civic yard will be required. The site suggested is the block bounded by Eighth and Ninth Streets, Adolphus and Amelia Streets, which is now in part owned by the Town. (When an incinerator is required, a site in the gore between Marlborough and McConnell Streets, at the edge of the Green Belt is suggested). This Ninth Street block is zoned industrial, but could be used for a transport termin-

al, or miscelleaneous industrial uses of approved class. The block immediately south of Eighth Street is suggested for use by bowling or tennis clubs, or other sports clubs.

TRANSIT SERVICE

Cornwall has been favoured over many fowns of comparable size, with an extraordinary convenient transportation service. The providing of passenger service is an ancillary of the Cornwall Street Railway's freight interchange service, but it has been a dominating factor in determining the extent of the built-up area both inside and outside the town. Passenger service is provided over track laid primarily for the movement of freight. In sections where there is no industry, there is a relative dearth of transportation. The natural consequence is that that area of the town develops where freight transfer is heaviest, and sooner or later, freight transfer on these streets, when fully built up, must end.

I have anticipated that time by suggesting trackage re-arrangements that will virtually remove all tracks from the city streets. This last can never be one hundred per cent. possible, but this result should be aimed at. Seventh Street extension is widened to provide a proper roadway clear of the railway track, and Water Street is widened for the same purpose. A new esplanade is proposed south of Canadian Cottons, both to provide wharfage as close to Cornwall as possible, and to direct freight traffic from the Montreal Road.

The Concession of the Cornwall Street Railway has still seven years to run. At that time desirable changes in the present service can be decided and whether to retain street cars, or to change to other forms of transit.

POST-WAR RECONSTRUCTION

One of the purposes of this report is to present a vision of future Cornwall, that from such can be picked out those public works that can be constructed as post-war measures, with assurance that each can be gone on with as individual items in a co-ordinated whole, and that each will be located in its right place and not interfere with some other just as badly needed improvement which must follow in due course. For example, the grade separation of Pitt Street Crossing of the C.N.R. is badly needed, but how it is accomplished will affect the grade separation of other crossings in the future, the provision of a badly needed new station, and, in some measure, the re-arrangement of the C.P.R. facilities.

A new Town Hall is required, a new Dominion office building should be urged for immediate construction; wharfage south of Canadian Cottons might be obtained; an air port must be considered; the new park south of the canal should be extended, but all these are relatively minor things. The major need is the removal of the C.P.R. yards to north of the C.N.R., as around this rotates the whole future of Cornwall. Nor is it physically such a difficult undertaking as it at first glance appears, nor one entailing excessive cost to either party, even if no government assistance be forthcoming.

All of which is respectfully submitted,

NORMAN D. WILSON.

April 21st, 1944. Wilson & Bunnell, Consulting Engineers, Toronto.



